

REMARKS

Please reconsider this application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application.

Disposition of Claims

Claims 1-28 are pending in the application. Claims 1 and 28 are independent. The remaining claims depend, directly or indirectly, from independent claim 1.

Claim Amendments

Claims 2-3, 5, 13-14, and 16 are hereby amended to correct typographical errors. Specifically, claims 2-3, 5, 13-14, and 16 are amended to capitalize the word “Boolean.”

Claims 7-8 are hereby amended to correct typographical errors. Specifically, claims 7-8 are amended to depend from claim 6. For examination purposes, the Examiner has already correctly assumed that claims 7-8 should depend from claim 6. *See* Office Action dated December 19, 2006, p. 4.

Claim 18 is hereby amended to correct a grammatical informality. Specifically, claim 18 is amended to separately recite “the first predicate” and “the second predicate.”

Claims 22-23 are hereby amended to correct typographical errors. Specifically, claims 22-23 are amended to recite “a probe cache identifier” and “a predicate cache identifier,” as these terms lack antecedent basis in the parent claims. Further, claim 23 is amended to recite “determining whether the *predicate cache* is valid,” for consistency with parent claim 21.

Independent claim 28 is hereby amended to correct typographical errors. Specifically, independent claim 28 is amended to remove all instances of the word “first,” as a

second predicate is not found in independent claim 28 or in any claims depending from independent claim 28.

No new matter is added by any of the aforementioned amendments, and no new search should be required, as the amendments are merely formalities to correct typographical errors and a grammatical informality, and therefore do not introduce any previously unexamined limitations.

Drawings

The drawings stand objected to under 37 C.F.R. § 1.83(b) because they fail to show the instrumented program (116) as described in the specification. As noted above, Figure 1 has been amended to include an instrumented program (116). No new matter is added by this amendment, as paragraph [0014] of the specification as filed clearly states that the probes (112 and 114) are in an instrumented program (116). Accordingly, withdrawal of this objection is respectfully requested. Further, Applicant respectfully requests the drawings be accepted in the next action.

Specification

The detailed description stands objected to as describing an instrumented program (116) when no such element is found in the drawings as filed. As noted above, Figure 1 has been amended to include an instrumented program (116). Accordingly, withdrawal of this objection is respectfully requested.

Claim Objections

Claims 7 and 8 stand objected to as being incorrectly dependent from claim 4. As noted above, claims 7 and 8 have been amended to depend from claim 6. Accordingly, withdrawal of this objection is respectfully requested.

Rejections under 35 U.S.C. § 112

Claim 7 and 8 stand rejected under 35 U.S.C. § 112 for reciting the limitation “cacheable” which is not found in claim 4. As noted above, claims 7 and 8 have been amended to depend from claim 6. Accordingly, withdrawal of this rejection is respectfully requested.

Rejections under 35 U.S.C. § 102

Claims 1-23 and 28 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,807,583 B2 (“Hrischuk”). This rejection is respectfully traversed.

“A claim is anticipated only if *each and every element* as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” Further, “[t]he identical invention must be shown in as complete detail as is contained in the ... claim.” MPEP § 2131 (emphasis added). Applicant respectfully asserts that Hrischuk does not expressly or inherently describe each and every element of claims 1-23 and 28. Specifically, independent claim 1 recites, in part:

 caching the first predicate in a predicate cache
 associated with the thread, based on the
 evaluating of the first predicate and cacheability
 of the first predicate; and
 transferring control to the thread, based on the
 caching.

Amended independent claim 28 includes substantially similar limitations.

1. “caching the first predicate in a predicate cache associated with the thread, based on the evaluating of the first predicate and cacheability of the first predicate”

The claims clearly require that a predicate of a probe be *cached*. The Examiner will surely appreciate that “caching” is a term of art that refers to storing program data (*e.g.*, instructions, objects, variables, *etc.*) in a manner that improves performance the next time the program data is requested. The Examiner has suggested that col. 28, lines 40-45 of Hrischuk describe the required caching. *See* Office Action dated December 19, 2006, p. 5. To the contrary, although the cited passage does describe *evaluating* predicates, the passage does not describe *caching* predicates. In fact, Hrischuk is completely silent with respect to *any* sort of caching whatsoever. For example, in the cited passage, Hrischuk describes recording events for subsequent evaluation, but simply *recording* data is not at all equivalent to *caching* data, and *an event* is not at all equivalent to *a predicate*.

Further, the claims clearly require that the predicate be cached in a *predicate cache associated with the thread* (*i.e.*, the thread with which the probe is associated). Even assuming *arguendo* that Hrischuk describes caching a predicate, Hrischuk is completely silent with respect to a predicate cache associated with a particular thread. Specifically, while tables 5-6 of Hrischuk, referenced by the passage cited above, describe various predicates used to determine whether to record events, the tables are merely generic listings of predicates, and are clearly not at all equivalent to the “predicate cache associated with the thread” recited in the claims.

Moreover, even assuming *arguendo* that Hrischuk describes “caching the first predicate in a predicate cache associated with the thread,” the claims clearly require that the predicate be cached “*based on evaluating the first predicate and cacheability of the first predicate*.” In other words, the claims require that caching the predicate be based on at least two

factors: 1) the result of evaluating the predicate, and 2) whether the predicate is cacheable. To the contrary, Hrischuk is completely silent with respect to *any* factors for caching a predicate whatsoever. In fact, even the broadest possible interpretation of Hrischuk (reasonable or not) would not yield *any* evidence of such factors.

2. “*transferring control to the thread, based on the caching*”

As discussed above, Hrischuk clearly does not describe “caching a predicate...” as required by the claims. Nonetheless, even assuming *arguendo* that Hrischuk describes all the aforementioned limitations, the claims further require transferring control to the thread *based on the caching*. In other words, caching the predicate must serve as a basis for transferring control to the thread. To the contrary, Hrischuk is completely silent with respect to transferring control to *any* thread based on *any* sort of caching whatsoever.

In view of the above, Hrischuk clearly does not expressly or inherently describe each and every limitation of amended independent claims 1 and 28. Thus, independent claims 1 and 28 are patentable over Hrischuk for at least the reasons given above. Claims 2-23 depend, directly or indirectly, from independent claim 1, and are therefore patentable over Hrischuk for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Rejections under 35 U.S.C. § 103

Claims 24-27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hrischuk in view of U.S. Patent No. 5,894,575 (“Levine”). Claims 24-27 depend from independent claim 1. This rejection is respectfully traversed.

To establish a *prima facie* case of obviousness, “[f]irst, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally

available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations” (*see* MPEP § 2143). Further, “all words in a claim must be considered in judging the patentability of that claim against the prior art” (*see* MPEP § 2143.03). Applicant respectfully asserts that the references, when combined, fail to teach or suggest all the limitations of claims 24-27.

As discussed above, Hrischuk does not expressly or inherently describe each and every element of independent claim 1. Levine fails to supply that which Hrischuk lacks, as evidenced by the fact that the Examiner has relied on Levine solely to disclose “wherein the invalidating comprises setting the predicate cache to zero,” “wherein the invalidating is a result of a thread-specific variable being stored,” and “setting the predicate cache to zero initially.” *See* Office Action dated December 19, 2006, pp. 14-15.


In view of the above, Hrischuk, in view of Levine, clearly does not teach or suggest all the limitations of independent claim 1. Thus, independent claim 1 is patentable over Hrischuk and Levine for at least the reasons given above. Claims 24-27 depend, directly or indirectly, from independent claim 1, and are therefore patentable over Hrischuk and Levine for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 03226/341001).

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Attachments: Replacement figure (1 sheet)